

WHAT IS CLAIMED IS:

1. A system for controlling media gateways,
comprising:

5 a Mobile Switching Center (MSC) operable to select a
Time Division Multiplexed (TDM) circuit associated with a
media gateway of a plurality of media gateways in
response to receiving a circuit service call setup
request from a mobile system;

10 a signaling gateway operable to translate an address
of said selected TDM circuit into an address of said
media gateway with which said selected TDM circuit is
associated; and

15 a Radio Network Controller (RNC) operable to select
an ATM Virtual Channel Connection (VCC) of a plurality of
ATM VCCs associated only with said media gateway based at
least in part on said address of said selected media
gateway, in response to receiving a request for a
channel, said RNC further operable to transmit
20 information regarding a selected channel of said selected
ATM VCC to said MSC for establishment of said circuit
service call.

25 2. The system of claim 1, wherein said circuit
service call setup request comprises a phone number for a
called party.

3. The system of claim 1, wherein said circuit
service call setup request comprises a voice path setup
request.

4. The system of claim 1, wherein said circuit service call setup request comprises a data path setup request.

5 5. The system of claim 1, wherein said circuit service call setup request comprises a circuit switched data path setup request.

10 6. The system of claim 1, wherein said address of said selected TDM circuit is a Bind Identity (BID) identifying the selected TDM circuit.

15 7. The system of claim 1, wherein said selected channel is a voice channel.

8. The system of claim 1, wherein said request for said channel is a Radio Access Bearer assignment request.

20 9. The system of claim 1, wherein said address of said media gateway is an Application Adaptation Layer type 2 (AAL-2) End Station Address (AESA).

25 10. The system of claim 9, wherein said AESA includes a media gateway identifier identifying said media gateway.

11. The system of claim 1, wherein said selected channel of said ATM VCC comprises an AAL-2 channel.

12. The system of claim 1, further comprising a first Q.2630 module operable to receive an establish request for said selected channel of said selected ATM VCC from a Q.2630 module of said RNC.

13. The system of claim 12, wherein said establish request comprises a Path Identity (PID) of said selected ATM VCC and a Bind Identity (BID) of said selected TDM circuit.

14. The system of claim 12, said signaling gateway further operable to communicate a control message to said media gateway to connect said TDM circuit and said selected channel.

15. The system of claim 14, said signaling gateway further operable to communicate a confirmation message to said RNC upon successful connection of said selected TDM circuit and said selected channel.

16. A method for selecting a circuit service call channel, comprising:

receiving a request for a circuit service call channel, said request comprising information identifying a media gateway selected out of a plurality of media gateways, said selected media gateway having a Time Division Multiplexed (TDM) circuit selected out of a plurality of TDM circuits associated with it; and

selecting an Asynchronous Transfer Mode (ATM) Virtual Circuit Channel Connection (VCC) from a plurality of ATM VCCs associated only with said selected media gateway; and

transmitting an Establish Request (ERQ) to a Q.2630 module of a signaling gateway.

17. The method of claim 16, said receiving step
5 comprising receiving a request for a channel selected from the group consisting of a voice channel and a data channel.

18. The method of claim 16, further comprising
10 selecting an ATM channel from said selected ATM VCC.

19. The method of claim 18, further comprising
connecting said selected ATM channel to said selected TDM circuit.

20. The method of claim 16, wherein said ERQ
15 comprises a Path Identity (PID) of said selected ATM VCC and a Bind Identity (BID) of said selected TDM circuit.

21. The method of claim 20, further comprising:
20 receiving an Establish Confirmation (ECF) message from said Q.2630 module upon successful connection of said selected TDM circuit and an ATM channel of said ATM VCC.

22. The method of claim 21, further comprising
25 communicating a control message, by said signaling gateway, to said selected media gateway to connect said selected TDM circuit identified by said BID and said ATM
30 channel.

23. The method of claim 16, further comprising transmitting a Radio Access Bearer (RAB) response to a Mobile Switching Center (MSC) from which said request for said circuit service call channel was received.

24. A method for controlling media gateways, comprising:

receiving a circuit service call setup request from a mobile system;

selecting, by a Mobile Switching Center (MSC), a Time Division Multiplexed (TDM) circuit of a plurality of TDM circuits associated with a media gateway of a plurality of media gateways in response to receiving said circuit service call setup request;

transmitting a request for a circuit switched channel to a Radio Network Controller (RNC) via a signaling gateway, said request including an address of said selected TDM circuit;

selecting an ATM Virtual Channel Connection (VCC) of a plurality of ATM VCCs associated only with said media gateway; and

transmitting information regarding an ATM channel of said selected ATM VCC to said MSC for establishment of said circuit service call.

25. The method of claim 24, further comprising translating, by said signaling gateway, said address of said selected TDM circuit into an address of said media gateway with which said selected TDM circuit is associated.

26. The method of claim 24, further comprising transmitting an establish request for said ATM channel to a Q.2630 module of said signaling gateway, said establish request comprising a Path Identity (PID) of the selected ATM VCC and a Bind Identity (BID) of the selected TDM circuit.

27. The method of claim 26, further comprising:

communicating a control message from said signaling gateway to said media gateway to connect said selected TDM circuit identified by said BID and said ATM channel identified by a Channel Identifier (CID); and

upon successful connection receiving, by said RNC, a confirmation message.

28. The method of claim 24, further comprising assigning a bind identity to said selected TDM circuit by said MSC.

29. A system for controlling media gateways, comprising:

a plurality of media gateways, each of said plurality of media gateways having a plurality of TDM circuits associated with it;

a call originating node operable to select a Time Division Multiplexed (TDM) circuit associated with a media gateway of said plurality of media gateways in response to receiving a circuit service call setup request from a mobile system;

a signaling gateway comprising a Q.2630 module operable to control said plurality of media gateways; and

a call terminating node operable to select an ATM Virtual Channel Connection (VCC) of a plurality of ATM VCCs associated only with said media gateway, in response to receiving a request for a channel, said call
5 terminating node further operable to transmit information regarding a selected channel of said selected ATM VCC to said call originating node for establishment of said circuit service call.

10 30. The system of claim 29, said signaling gateway further operable to translate an address of said selected TDM circuit into an address of said media gateway with which said selected TDM circuit is associated.

15 31. The system of claim 29, wherein said call originating node comprises a Mobile Switching Center.

20 32. The system of claim 29, wherein said call terminating node comprises a Radio Network Controller.

33. The system of claim 29, wherein said circuit service call setup request comprises a voice path setup request.

25 34. A system for controlling media gateways, comprising:

a Mobile Switching Center (MSC) operable to select an Application Adaptation Layer type 2 (AAL-2) path associated with a media gateway of a plurality of media
30 gateways in response to receiving a circuit service call setup request from a mobile system;

a signaling gateway operable to translate an address of said selected AAL-2 path into an address of said media gateway with which said selected AAL-2 path is associated; and

5 a Radio Network Controller (RNC) operable to select an ATM Virtual Channel Connection (VCC) of a plurality of ATM VCCs associated only with said media gateway based at least in part on said address of said selected media gateway, in response to receiving a request for a channel, said RNC further operable to transmit
10 information regarding a selected channel of said selected ATM VCC to said MSC for establishment of said circuit service call.

15 35. The system of claim 34, wherein said circuit service call setup request comprises a voice path setup request.

20 36. The system of claim 34, wherein said circuit service call setup request comprises a circuit switched data path setup request.

25 37. The system of claim 34, wherein said address of said selected AAL-2 path is a Bind Identity (BID) identifying the selected AAL-2 path.

30 38. The system of claim 34, wherein said request for said channel is a Radio Access Bearer assignment request.

39. The system of claim 34, wherein said address of said media gateway is an Application Adaptation Layer type 2 (AAL-2) End Station Address (AESA).

5 40. The system of claim 39, wherein said AESA includes a media gateway identifier identifying said media gateway.

10 41. The system of claim 34, further comprising a first Q.2630 module operable to receive an establish request for said selected channel of said selected ATM VCC from a Q.2630 module of said RNC.

15 42. The system of claim 41, wherein said establish request comprises a Path Identity (PID) of said selected ATM VCC and a Bind Identity (BID) of said selected AAL-2 path.